#### CURRICULUM VITAE Karen M.M. Steensma

Department of Biology / Department of Geography and Environment Trinity Western University, Langley BC V2Y 1Y1 604.888.7511 local 3118 email: steensma@twu.ca

## Education

M.S. Biology. 1985. Western Washington University. Thesis title: Feeding ecology of the gastropod *Batillaria attramentaria.* 

B.S. Biology, cum laude. 1980. Washington State University. Focal area: animal conservation.

## Academic and professional experience

 Trinity Western University, 22500 University Dr., Langley, British Columbia V2Y 1Y1 CANADA Professor of Biology and Co-Chair, Geography & Environment, 2017-present Associate Professor of Biology and Environmental Studies, 2012-2017 Assistant Professor of Biology and Environmental Studies, 1998-2011 Lecturer in Biology, 1986-1997
 Washington State University, Pullman, Washington

Research Associate, Department of Animal Science, College of Agriculture, 2016-present **Steensma Dairy**, Lynden, Washington.

Co-owner, 1982 to present

Whatcom Community College, Bellingham, Washington

Instructor of Biology, 1985-1988 (first year biology, second year zoology courses)

# Western Washington University, Bellingham, Washington

Graduate Teaching Assistant, 1982-1984 (anatomy and physiology, zoology courses)

Northwest Dairy Times, Portland, Oregon

Reporter and Editor, 1980-1981. Student reporter, then editor for regional dairy magazine covering Washington, Oregon, and Idaho dairy industries, supported by state dairy federations

## As guest lecturer/visiting professor:

# Dordt University, Sioux Center, Iowa

Guest lecturer, agroecology course, 2018

University of the Fraser Valley, Chilliwack, British Columbia

Guest lecturer on topics related to agroecology and integrated pest management, 2010-present

# University of Washington, Seattle, Washington

Guest lecturer on topics related to sustainability of dairy farming, 2008-2017

## Western Washington University, Bellingham, Washington

Guest lecturer on transboundary watershed issues, 2017

Creation Care Semester Program, Western Samoa and University of Belize

Visiting professor of tropical marine ecosystems; 1999-2005

AuSable Institute of Environmental Studies, Whidbey Island, Washington

Visiting professor of marine stewardship; ecological agriculture guest lecturer, 2000-present **Trinity Western University**, Langley, British Columbia

Guest lecturer: GEOG 400 Environmental Management Issues on farmland preservation; IDIS 400 on creation stewardship; NATS 487 on campus land management, food ethics

**Current administrative duties:** Co-chair, Geography & Environment Department; Advisor, Pre-Veterinary Students; Member, Animal Care Committee (IACUC); Chair, Ecological Stewardship Committee (ESC); Faculty Representative, Au Sable Institute of Environmental Studies. **Past service:** University Senate, Core Assessment Team, T&P, RAS

## **Courses taught at TWU (1986-present)**

Vertebrate Zoology BIOL 308 Developmental Biology BIOL 340 Invertebrate Zoology BIOL 360\* Coral Reef Ecology BIOL/GENV 364\* General Ecology BIOL/GENV 281/3<u>81</u> Marine Ecology BIOL/GENV 362/382\* Food, Nutrition, & Agroecology BIOL 400\* Senior Thesis BIOL/BIOT/GENV 409/410/411 Conservation Biology/Applied Ecology BIOL/GENV 484\* \*Developed or co-developed the course

Areas of expertise and research: Conservation biology, ecological agriculture, marine ecology, and coral reef ecology. Research has particularly centered around animal and farmland conservation, with active research programs on the role of wildlife in agriculture; the American kestrel falcon, *Falco sparverius;* the invasive European starling, *Sturnus vulgaris;* the Hawaiian short-eared owl *Asio flammeus sandwichensis;* invasive ungulates of the Hawaiian Islands, and on the Oregon forest snail, *Allogona townsendiana.* Other interest areas include wildlife-friendly agriculture, university land management for biodiversity, the interface between salmon-bearing streams and agriculture, transboundary watersheds, and impacts of urbanization on watersheds (both temperate and tropical). Have supervised more than 50 undergraduate and graduate thesis projects (see below).

#### **Research** grants

Funding	Project	\$	Amount
Endangered Species Recovery/World Wildlife Fund Canada*	Oregon Forest snail	CDN	20,000
Whatcom Farm Friends*	Kestrel falcons in agriculture	US	3,000
BC Ministry of Agriculture*	Kestrel falcons in agriculture	CDN	10,000
Fraser Valley Regional District*	Bird deterrents in agriculture	CDN	10,000
Washington Blueberry Commission*	Kestrel falcons in agriculture	US	5,000
BC Blueberry Council /Agriculture Environment and Wildlife Fund*	Kestrel falcons in agriculture	CDN	18,000
US Dept of Agriculture (USDA)/ Specialty Crop Research Initiative (SCRI)**	Bird damage to fruit crops across North America	US	2,000,000
USDA Western Sustainable Agriculture, Research and Education (WSARE) Farmer- Rancher*	Birds at dairy-berry interface	US	25,000
Environment Canada, Science Horizons*	Bird damage to fruit	CDN	12,000
Washington State University (WSU) BioAg Planning Grant**	Bovine-avian interactions	US	2,360
USDA/WSARE Research**	Bovine-avian interactions	US	238,105
WSU Emerging Concepts***	Robo-predator birds in agriculture	US	80,000
USDA/WSARE Research**	Short-eared owls (pueo) in agriculture	US	50,000
ECO Canada*	Kestrel falcons in agriculture	CDN	7,200
NSERC USRA**	Salish sucker population survey	CDN	9,600
ECO Canada*	Wildlife corridor camera-trapping	CDN	2,000
ECO Canada*	Watershed wildlife research	CDN	6,000
USDA/WSARE Research**	Ungulates on Hawaiian ranches	US	350,000

### Awards and scholarships

Nominee, TWU Provost Innovative Teaching Award, 2016

Murdock Charitable Trust Ramp-Up Grant to TWU Faculty of Natural Sciences, 2016 (co-applicant with 11 other FNAS research participants on \$150,000 institutional grant)

Washington Dairy Products Commission, 2016 (wrote \$1,500 grant for Whatcom Farm Circle, an agricultural education event for 400 grade 3-4 students)

Murdock Charitable Trust Community Program Award, 2009 (scientific advisor to A Rocha USA on \$180,000 grant related to community gardens and support of conservation techniques in agriculture)
Whatcom Conservation District Award, 1997
Graduate Tuition Waiver Scholarship, Western Washington University, 1982-1985
Presidential Honor Scholarship, Seattle Pacific University, 1978
Freshman Honor Scholarship, Calvin College, 1977
Alumni Scholarship, Calvin College, 1977

Lynden Kiwanis Honor Student Award, 1976

## Professional affiliations and community service

A Rocha USA Board of Directors, member Adopt-a-Stream Transboundary Group for Bertrand Creek, volunteer American Association of University Women, science workshop presenter American Scientific Affiliation, member\* AuSable Institute of Environmental Studies, academic council\* Barnyard Kids 4H club and Dairyland 4H club, parent volunteer Bertrand and Fishtrap Creeks Watershed Improvement Districts, landowner member\* Berthusen Park Advisory Board, member\* Concerned Christian Citizens Board of Directors, member and president Ebenezer Christian School, Mothers Club, volunteer; historic farmhouse tour co-chair Five Loaves Farm Community Garden, volunteer Lynden Choral Society, member Lynden Christian Schools Board of Directors, member; Education Committee chair Lynden Christian Schools Agriculture Education advisory committee Lynden Farmers' Market, volunteer Lynden Pioneer Museum, volunteer Mountain View Christian Reformed Church, member, pianist Northwest Washington Fair Agricultural Education, Food Lab Committee, Chair\* Nooksack Salmon Enhancement Association, member Pacific Northwest Agricultural Bird Damage Group, chair Puget Sound Water Quality Authority, grant review committee Salmon River Watershed Management Partnership Board of Directors, member Seattle Pacific University Agriculture for Community Education, volunteer Sigma Delta Chi - Society of Professional Journalists, member Trinity Western University Community Garden, volunteer Washington State University Dairy Club, member Washington State University Whatcom Research Facilities Planning Committee, member\* Whatcom Dairy Women, member; education co-chair\* Whatcom Farm Friends, producer member Whatcom Family Farmers, member; outreach and education\* Whatcom Land Trust, member Whatcom Conservation District Board of Supervisors, member Wiser Lake Chapel, member, girls' club leader, pianist\* *\*Currently active* 

## Peer-reviewed scholarly journal articles

- 1. Vlas, S, K Steensma, **KMM Steensma.** 2023. Climate change mitigation: Carbon sequestration in grassland systems with adaptive multi-paddock grazing. In preparation for *Ecosphere Agroecosystems*.
- 2. Luther, LR, CJ Wilhite, **KM Steensma**, J Cotin, AI Ripodas-Melero, DR Risch, MR Price. 2023. Factors influencing the distribution of the Hawaiian Short-eared Owl (Pueo; *Asio flammeus sandwichensis*) on the island of Maui, Hawaii. *Raptor Research Foundation Journal* (submitted).
- 3. Lichtenwalter, C, **K Steensma**, M Marcondes, K Taylor, C McConnel, A Adams-Progar. 2023. Seasonal use of dairies as overnight roosts by Common Starlings (*Sternus vulgaris*). *Birds* 4:213-224.
- 4. Duvall, ES, EK Schwabe, **KMM Steensma.** 2023. A win-win between farmers and an apex-predator: investigating the relationship between bald eagles and dairy farms in the Pacific Northwest. *Ecosphere* Agroecosystems.10 pp. https://doi.org/10.1002/ecs2.4456
- 5. Bruner, N\*, M Pearson, **KMM Steensma**.2021. GIS assessment of riparian reserve widths in critical habitat for the Salish Sucker (*Catostomus* sp.) in British Columbia since the Species at Risk Act was enacted. *Western Geography* (in press).
- 6. Flores-Ricardo, LA, MJ Gordillo-Perez, C Bosch-Diaz, **KMM Steensma**, B Reyes-Tur. 2021. Communal oviposition of the threatened Cuban tree snail *Polymita muscarum* (Gastropoda: Cepolidae) in an agroecosystem. *Novitates Caribaea* 17:187-195.
- 7. Adams-Progar, A, **K Steensma**, S Shwiff, J Elser, S Kerr, T Caskin. 2020. Understanding and preventing bird damage on dairies. *Proceedings Vertebrate Pest Conference* 29:1-3 (Paper 56; solicited and peer-edited).
- 8. Elser, JL, CA Lindell, **KMM Steensma**, PD Curtis, DK Leigh\*, WF Siemer, JR Boulanger, SA Shwiff. 2019. Measuring bird damage to three fruit crops: a comparison of grower and field estimates. *Crop Protection* 123:1-4.
- Elser, JL, AL Adams-Progar, KMM Steensma, TP Caskin, SR Kerr, SA Shwiff. 2019. Economic impacts of birds on dairies: Evidence from a survey of Washington dairy operators. *PLOS One* Sept 2019: 12 pp. https://doi.org/10.1371/journal.pone.0222398
- Hannay, MB, JR Boulanger, PD Curtis, RA Eaton, BC Hawes, DK Leigh\*, CA Rossetti, KMM Steensma, CA Lindell. 2019. Bird species and abundances in fruit crops and implications for bird management. *Crop Protection* 120:43-49.
- 11. Lindell, CA, **KMM Steensma**, PD Curtis, JR Boulanger, JE Carroll, C Burrows, DP Lusch, NL Rothwell, SL Wieferich, HM Henrichs, DK Leigh\*, RA Eaton, and GM Linz. 2016. Proportions of bird damage in tree fruits are higher in low-fruit-abundance contexts. *Crop Protection* 90:40-48.
- Steensma, K, C Lindell, D Leigh\*, C Burrows, S Wieferich, E Zwamborn\*. 2016. Bird damage to fruit crops: a comparison of several deterrent techniques. *Proceedings Vertebrate Pest Conference* 27:196-203 (solicited and peer-edited).
- 13. Anderson, A, CA Lindell, KM Moxcey, WF Siemer, GM Linz, PD Curtis, JE Carroll, CL Burrows, JR Boulanger, **KMM Steensma**, SA Shwiff. 2013. Bird damage to select fruit crops: The cost of damage and the benefits of control in five states. *Crop Protection* 52:103-109.
- 14. Steensma, KMM, DR Clements, JR Wood and B Lowe. 2013. Stewarding the gift of land: Christian campuses as land management models. *Perspectives on Science and Christian Faith* 65:1-12.
- 15. Edworthy, AB\*, **KMM Steensma**, HM Zandberg\*, and PL Lilley. 2012. Characterization of home range size and habitat use in an endangered land snail. *Canadian Journal of Zoology* 90:875-844.
- Steensma, KMM, PL Lilley, and HM Zandberg\*. 2009. Life history and habitat requirements of the Oregon forestsnail, *Allogona townsendiana*, (Mollusca, Gastropoda, Pulmonata) in a British Columbia population. *Invertebrate Biology* 128(3):232-242.

\*denotes TWU undergraduate or graduate involvement in publication

## Consulting projects, technical papers, and other research products

- 1. Price, M, J Cotin, **K Steensma**, L Luther, C Wilhite. 2021. Pest reduction on agricultural lands due to Hawaiian short-eared owls. Final report to United States Department of Agriculture on Western Sustainable Agriculture Research and Education Project OW 18-017. 27 pp.
- 2. Dyck, K\* and **KM Steensma**. 2020. Survey for Salish Sucker (*Catostomus catostomus sp.*) in the lower Salmon River, British Columbia. Final technical report: NSERC and Fisheries and Oceans Canada. 16 pp.
- Adams-Progar, A, S Kerr, S Shwiff, K Steensma. 2019. Bovine-avian interactions on dairies: improving cow welfare and farm economic stability by implementing effective and sustainable pest bird deterrence methods. Final report to United States Department of Agriculture on Western Sustainable Agriculture Research and Education Project SW16-013. 8 pp.
- 4. Elser, J, A Adams-Progar, S Shwiff, **KMM Steensma.** 2018. The economic impact of bird damage to dairies. Fort Collins, CO: USDA-APHIS Wildlife Research Center Fact Sheet, 2 pp.
- Bhusal, S, K Khanal, M Karkee, KMM Steensma, ME Taylor. 2018. Unmanned aerial systems (UAS) for mitigating bird damage in wine grapes. Proceedings of the 14<sup>th</sup> International Conference on Precision Agriculture, Montreal, Quebec, Canada. 6 pp.
- Steensma, K, J Steensma, J DeJong, S Kerr, and J VanderVeen. 2017. Natural predators as a means to limit wildlife damage at the dairy-fruit interface: Final Report to United States Department of Agriculture on Western Sustainable Agriculture Research and Education Farmer-Rancher Project FW 14-012. 35 pp.
- Timmer, D, J Steensma, K Steensma, J Korthuis. 2017. Birds of prey and dairy farms. Educational video prepared for farmers and general public as fulfillment of United States Department of Agriculture report on Western Sustainable Agriculture Research and Education Farmer-Rancher Project FW 14-012. Hosted by Washington State University College of Agriculture, Human, and Natural Resource Sciences at <a href="https://www.youtube.com/watch?v=hnA5fFWmGUs">https://www.youtube.com/watch?v=hnA5fFWmGUs</a>. 3 minutes.
- 8. **Steensma, K**, S Kerr, and B Garries\*. 2016. Natural predators as a means to limit wildlife damage at the dairy-fruit interface: Report to dairy participants. Technical report, United States Department of Agriculture Research and Education Farmer-Rancher Project FW14-012. 15 pp.
- 9. Steensma, E\* and **K Steensma.** 2016. Washington farmland birds. Bird identification tool prepared for United States Department of Agriculture Western Sustainable Agriculture Research and Education project, for use by farmers, conservation officials, wildlife workers, and the general public.
- 10. Steensma, K, S Kerr, A Adams-Progar. 2015. Birds on berries and dairies. WSU Extension online article. http://whatcom.wsu.edu/wam/jun15 s2.html
- 11. Lindell, C, S Shwiff, P Curtis, P Howard, **K Steensma**, G Linz, J Boulanger, N Rothwell, J Carroll, C Oh, C Burrows, M Longstreth, C Kaiser, and D Lusch. 2014. Limiting bird damage in fruit crops. A Specialty Crop Research Initiative Project technical summary prepared for the US Department of Agriculture and growers.
- Heron, J, C Bianchini, T Chatwin, G Gadsden, M Harrison, J Hirner, S Lavallee, P Lilley, J Malt, A Manweiler, K Ovaska, K Robbins, L Sopuck, K Steensma, T Stevens, A Tanaka, K Welstead, M Younie. 2012. Recovery plan for Oregon Forestsnail (*Allogona townsendiana*) in British Columbia. Report prepared for the BC Ministry of Environment. 50 pp.
- Steensma, KMM, PL Lilley, M DenHaan\*, and J Thiessen\*. 2011. Riparian landscape remediation and Allogona townsendiana habitat restoration adjacent to the Neufeld Annex project at Trinity Western University. Langley, BC. Technical consulting project for Trinity Western University.
- 14. **Steensma, KMM** 2011. Ecological aspects of the Bertrand Creek corridor: report commissioned by the Axling Road Neighbors Group. Bellingham, WA. Technical consulting project and testimony to the Whatcom County Hearing Examiner.
- 15. Steensma, KMM 2010. Investigation of wild raptor habitat enhancement as a low-cost pest control method for blueberries. Lynden, WA and Abbotsford, BC. Progress report to the Washington Blueberry Commission and the BC Blueberry Council.

- 16. **Steensma, KMM** 2009. Bird deterrent methods for agricultural areas of southwest British Columbia and northwest Washington. *Proceedings of the Lower Mainland Horticultural Improvement Association Short Course*, Abbotsford, BC. Technical summary of a presentation.
- 17. Steensma, KMM, A Edworthy\*, K Hartline\*, D Wong\*, B Kern and A Gardner\*. 2009. Efficacy of bird deterrent devices in agricultural areas of the Fraser Valley of British Columbia: a pilot study. Consulting project report to the Fraser Valley Regional District and the BC Ministry of Agriculture. Abbotsford, BC.
- 18. **Steensma, KMM** and D Timmer. 2008. Mulder Wildlife Pond: design and implementation of a pond and field habitat restoration. Lynden, WA. A Rocha USA consulting project.
- 19. Steensma, KMM 2008. Bird research update for Whatcom, Skagit and BC berry growers. www.wcfarmfriends.com/go/doc/1579/216272/ Progress report on agricultural research.
- 20. Koole, SR\* and KMM Steensma. 2007. Land use in the Canadian portions of two transboundary watersheds, Bertrand Creek and Fishtrap Creek. *Proceedings of the Georgia Basin Puget Sound Research Conference*, Vancouver, BC. Technical summary of a presentation. Proceedings published at <u>http://www.engr.washington.edu/epp/psgb/2007psgb/2007proceedings/poster\_index.htm#P1</u>
- 21. **Steensma, KMM** and D Timmer. 2007. Ebenezer Christian School Outdoor Education Pond: design, implementation, and interpretive signage. Lynden, WA. A Rocha USA consulting project.
- 22. **Steensma, KMM**, B Chisholm, S Tang, S Stoner, A Phay, and S Koole\*. 2006. Bertrand Creek State of the Watershed Report. Lynden, WA. Technical report for the Bertrand Creek Watershed Improvement District, Nooksack Recovery Team, and Whatcom County.
- 23. **Steensma, KMM** and PL Lilley. 2006. Assessment of critical habitat and predation effects for the Oregon forestsnail *Allogona townsendiana*: Final report. Toronto, OT. Technical research report submitted to the Endangered Species Recovery Fund / World Wildlife Fund Canada.
- 24. Koole, SR\*, PL Lilley, and **KMM Steensma**. 2006. Preliminary environmental inventory and summary of activities on the 57-acre parcel of Trinity Western University. Langley, BC. Technical report by the Trinity Western University Ecological Stewardship Committee.
- 25. **Steensma, KMM** and H Silveira\*. 2003. Recommended management strategies for the Oregon forest snail, *Allogona townsendiana*, on the Trinity Western University campus. Langley, BC. Trinity Western University Ecological Stewardship Committee and Campus Planning Committee report.
- 26. Steensma, KMM, P Brown, DR Clements, C Hall, G Jordan, D Jordan, S Morris, S Olson, J VanDyke, and G Weeks\*. 2003. Environmental Impact Statement on the RNT Addition. Langley, BC. Trinity Western University Ecological Stewardship Committee and Campus Planning Committee technical report.
- Steensma, K et al, contributing editor. 1992. State of the Sound: Puget Sound Water Quality Authority. Olympia, WA. Technical report editor.
   \*denotes undergraduate student or TWU graduate involvement in project

# Non-refereed publications

- 1. **Steensma, K** and C. Lallas. 2016. Wildlife on the farm: curriculum for grades 3-4 and overall event plan for Whatcom Farm Circle. *Washington State University & Whatcom Family Farmers*, Lynden, Washington.
- 2. Adams-Progar, A, S Kerr, and **K Steensma**. 2016. WSU partners with Washington dairy producers to address pest-bird management issues. *Washington State University Dairy News*, September.
- 3. Steensma, K. 2016. Dairies are, in fact, friends of water, soil. Lynden Tribune, Aug 31.
- 4. Steensma, K 2008. Pond habitat draws crowd. ARUSA News: Christians in Conservation 17:3.
- 5. Steensma, K. 2007. Field of dreams: Mulder Wildlife Pond enhancement project. *ARUSA News: Christians in Conservation* 16:3.
- 6. Steensma, K. 2007. Bring on the kestrels! A Rocha USA News: Christians in Conservation 14:1.
- 7. Steensma, K. 2000. Can salmon and humans coexist? CCC Communique' April/May 2000:1-3.
- 8. Steensma, K. 1998. Response to proposed listing of Chinook salmon under the Endangered Species Act. Nooksack Salmon Enhancement Association (NSEA) Newsletter 6(1): special insert.
- 9. Steensma, K. 1997. Bertrand Creek: a tradition of stewardship. NSEA Newsletter 5 (1):6-7.

- 10. Steensma, K. 1995. Tradition of stewardship. Invited community columnist, Bellingham Herald, September.
- 11. Steensma, J and K Steensma. 1992. The future of farming in Whatcom County. CCC Communique, June.
- 12. Rottman, B and K Steensma. 1990. Growing pains in Whatcom County: two views. CCC Communique, June.
- 13. Steensma, K 1990. Garbage tax: good stewardship or bad idea? CCC Communique, April.
- 14. Steensma, K 1988. Christian earthkeeping: why Christians should recycle. CCC Communique, May.
- 15. Korthuis, EC and **KMM Steensma**. 1985. *Lynden Christian School 75th Anniversary: A History*. Bellingham, Washington: Gerrit Byeman and Associates. 78 pp.
- 16. **Steensma, KM** 1981. Labor management: how 6 Northwest dairymen handle employees. *NW Dairy Times,* Apr./May. p. 26-33.
- 17. Steensma, KM 1981. The raw milk incident. NW Dairy Times, Apr./May. p. 22-25.
- 18. Steensma, KM 1981. Energy on the dairy. NW Dairy Times, Feb. p. 28-35.
- 19. Steensma, KM 1980. Brucellosis herds awaiting depopulation money. NW Dairy Times, Dec. p. 11.
- 20. Steensma, KM 1980. Reproductive problems, findings highlight Dairy Days. NW Dairy Times, Dec. p. 16.
- 21. Steensma, KM 1980. Cooperative of University Dairy Students: something to chew about. *Hoard's Dairyman*. Oct 10, p. 1328.
- 22. Steensma, KM 1980. Antibiotics in milk: follow-up. NW Dairy Times, Aug. p. 9.
- 23. Steensma, KM 1980. Freeze-branding. NW Dairy Times, Aug. p. 8.
- 24. Steensma, KM 1980. Washington State University Vet Conference: report #2. NW Dairy Times, June, p. 20.
- 25. Steensma, KM 1980. Why prenatal vaccination? NW Dairy Times, April, p. 26.
- 26. Steensma, KM 1980. Farmlands preservation conference. NW Dairy Times, Feb. p. 25.

#### Presentations

- 1. **Steensma, KMM.** 2022. Wildlife and agriculture: Agroecosystem research in the Pacific Northwest and the Hawaiian Islands. Trinity Western University Pro-D presentation, Faculty of Natural and Applied Sciences.
- Tessman, N\*, J Louw\*, LA Onyango, KMM Steensma. 2022. Seasonal water quality parameters in an agricultural watershed in British Columbia, Canada. Murdock Undergraduate Research Conference, Vancouver, Washington.
- 3. ImBeau, B\*, **KMM Steensma**. 2022. Seasonality of bat species richness in Langley, British Columbia. Murdock Undergraduate Research Conference, Vancouver, Washington.
- 4. **Steensma, KMM.** 2022. Wildlife and agriculture: Agroecosystem research in the Pacific Northwest and the Hawaiian Islands. Trinity Western University CREATE Conference, Langley, BC.
- 5. Bruner, N\*+, M Pearson, **K Steensma.** 2021. GIS assessment of riparian reserve widths in critical habitat for the Salish sucker (*Catostomus* sp.) in British Columbia since the Species at Risk Act was enacted. Trinity Western University Undergraduate Research Conference, Langley, BC.
- 6. Reimer, B\*+, M Jackson, **K Steensma.** 2021. Habitat suitability for Oregon forestsnail (*Allogona townsendiana*) in Surrey, British Columbia. Trinity Western University Undergraduate Research Conference, Langley, BC.
- Dyck, K\*+ and K Steensma. 2021. Survey for Salish Sucker (*Catostomus catostomus sp.*) in the lower Salmon River, British Columbia. Trinity Western University Undergraduate Research Conference, Langley, BC.
- 8. **Steensma, K**+, L Luther\*, M Price. 2020. Hawaiian short-eared owls (Pueo) and agriculture. Hawaii Farmers Union Haleakala Chapter, Makawao, HI.
- 9. Luther, L\*, **K Steensma**, and M Price. 2020. Which factors influence the distribution of Hawaiian short-eared owls (Pueo)? Maui Final Results Meeting & Talk Story, Kula, HI.
- 10. Luther, LR\*+, CJ Wilhite, J Cotin, **KM Steensma**, and MR Price. 2019. Factors influencing the distribution of the Hawaiian short-eared owl. The Wildlife Society Conference, Reno, NV
- Luther, LR\*+, CJ Wilhite, AI Ripodas-Melero, J Cotin, K Harmon, K Steensma, and MR Price. 2019. Prey biomass and availability as factors influencing the distribution of Pueo. Hawaii Conservation Conference, Honolulu, HI.
- 12. Betsworth, L\*+, M Warne, and KMM Steensma. 2019. Analyzing nesting and fledgling behaviors of

American Kestrels (*Falco sparverius*) at a nesting box site in British Columbia. Murdock Undergraduate Research Conference, Vancouver, WA

- Dyck, K\*+, R Snook, M Pearson, and K Steensma. 2019. Population assessment of the endangered Salish sucker (*Catostomus sp cf catostomus*) in the upper Salmon River watershed, British Columbia. Murdock Undergraduate Research Conference, Vancouver, WA
- Brouwer, J\*+ and KM Steensma. 2019. Comparison of fungal diversity in second growth and old growth sections of Berthusen Park, WA. Murdock Undergraduate Research Conference, Vancouver, WA.
- 15. Steensma, J, **KMM Steensma**, K Steensma, E Steensma, and Z Steensma. 2019. Past and future of the family dairy farm. Field trip and presentation to the Cooperative of University Dairy Students, Washington State University, Lynden, Washington.
- 16. Steensma, J, **KMM Steensma**, E Steensma, and Z Steensma. 2019. Ecological agriculture approaches on a Northwest Washington dairy. Field trip and presentation to Ecological Agriculture course, AuSable Institute of Environmental Studies, Lynden, Washington.
- 17. Steensma, KMM and A Adams-Progar. 2019. Pest bird issues on dairies: how did we get here? Presentation at Pest Bird Management Workshops, Lynden, Washington and Sunnyside, Washington.
- 18. **Steensma, KMM** and J Steensma. 2018. Challenges to the smaller-scale, rotationally-grazed dairy. Field trip and presentation to Cooperative of University Dairy Students, Washington State University, Lynden, Washington.
- 19. Steensma, KMM. 2018. Birds, berries, cows, and humans: Agroecology in the Pacific Northwest. Dordt College Agroecology Course, Sioux Center, Iowa.
- Steensma, J, KMM Steensma, Z Steensma\*. 2018. Seeking sustainability on a family dairy farm. Field trip and presentation to Ecological Agriculture course, AuSable Institute of Environmental Studies, Lynden, WA.
- 21. Bhusal, S\*+, K Khanal, M Karkee, KMM Steensma, ME Taylor. 2018. Unmanned aerial systems (UAS) for mitigating bird damage in wine grapes. Proceedings of the 14<sup>th</sup> International Conference on Precision Agriculture, Montreal, Quebec.
- 22. **Steensma, KMM.** 2018. Land management practices on the Trinity Western University campus. Presentation to the BC Environmental Articulation Meeting, Langley, BC.
- 23. Sarchet, A\*, **K Steensma.** 2018. Pest birds on dairies: seasonal changes in pest bird numbers on Northwest Washington dairies. British Columbia Undergraduate Research Conference, Langley, BC.
- 24. Caskin, T\*, A Adams-Progar, **K Steensma**, S Kerr, J Harrison, J Gay, B Garries\*. 2017. Evaluation of wild bird species populations on Washington dairy farms. Western Sustainable Agriculture Research and Environment presentation, Pullman, Washington.
- 25. Sarchet, A\*, **K Steensma.** 2017. Pest birds on dairies: seasonal changes in pest bird numbers on Northwest Washington dairies. Murdock Charitable Trust College Science Research Conference, Walla Walla, Washington.
- Steensma, KMM. 2017. Spotlight on snails: the Oregon forest snail *Allogonia townsendiana*, other friends, and enemies. South Coast Conservation Program – Conservation Connection Series, Mission, BC.
- 27. **Steensma, KMM**. 2017. Mentoring women in agriculture. University of the Fraser Valley, Chilliwack, BC.
- 28. **Steensma, KMM** and J Steensma. 2017. Dairy farming and water issues in a transboundary watershed. Field trip and presentation to Western Washington University Geography of Borderlands and University of the Fraser Valley Sustainable Agriculture students, Lynden, WA.
- 29. **Steensma, KMM**. 2016. Bird populations on Whatcom County dairy farms: economic impacts and future directions. Whatcom Conservation District Farm Speaker Series, Animal Health and Herd Management Meeting, Lynden, WA.
- 30. Banner, K\*, D Leigh\*, and KMM Steensma+. 2016. Use of pellet analysis to determine the diet of the American kestrel, *Falco sparverius*, in Pacific Northwest cherry orchards. Poster presentation, Washington Small Fruit Conference, Lynden, WA.

- 31. Banner, K\*+, D Leigh\*, and KMM Steensma. 2016. Use of pellet analysis to determine the diet of the American kestrel, *Falco sparverius*, in Pacific Northwest cherry orchards. Poster presentation, Murdock Charitable Trust College Science Research Conference, Gonzaga University, Spokane, WA.
- 32. Steensma, J, **KMM Steensma**, E Steensma\*, and Z Steensma\*. 2016. Whatcom County dairy farming: ecology, politics and economic realities. Field trip and presentation to Ecological Agriculture course, Au Sable Institute of Environmental Studies, Lynden, WA.
- 33. **Steensma, KMM**, K Sell\*, and J Merchel\*. 2016. White Rock pier-walk, plankton tow, and microscope peek: experiential connection for artists and scientists. Invited presentation, Sea Change Colloquium II, Surrey, BC.
- 34. **Steensma, KMM.** 2016. Reflections from 30 years of reef-watching. Invited presentation, Sea Change Colloquium II, Surrey, BC.
- 35. **Steensma, KMM**. 2016. Bird damage to fruit crops: a North American overview. Invited presentation, Vertebrate Pest Conference, Newport Beach, CA.
- 36. **Steensma, KMM**. 2016. Dairy farming for a sustainable future in the Pacific Northwest. Guest lecture to the Sustainable Agriculture course, University of the Fraser Valley, Chilliwack, BC.
- 37. Steensma, J and **KMM Steensma**. 2016. Sustaining the family dairy farm in Whatcom County. Field trip and presentation to Environmental Studies Agriculture Course, University of Washington, Lynden, WA.
- 38. Bazin, C\*, D Leigh\*, and **KMM Steensma**+. 2015. An in-depth look at the frugivorous bird species present In Pacific Northwest cherry orchards. Poster presentation, Washington Small Fruit Conference, Lynden, WA.
- 39. **Steensma, KMM**, D Timmer, B Felger. 2015. Birds on farms: why is it important to know them? Presentation and falconry demonstration to Lynden High School Animal Science Class and Lynden Christian High School Introduction to Agriculture Class, Lynden, WA.
- 40. Steensma, JW and **KMM Steensma**. 2015. Pressures and promises of a grazed dairy in the Pacific Northwest. Field presentation to AuSable Institute of Environmental Studies Ecological Agriculture Class, Lynden, WA.
- 41. **Steensma, KMM**. 2015. History and current overview of the Bertrand Watershed. Invited speaker, Bertrand Watershed Conference, Whatcom Conservation District, Lynden, WA.
- 42. Koepke, J\*, D Leigh\*, E Zwamborn\*, and **KMM Steensma**. 2014. Investigation of falconry as a bird pest management practice in blueberry crops. Poster presentation, Washington Small Fruit Conference, Lynden, WA.
- 43. Koepke, J\*, D Leigh\*, G Jordan, and **KMM Steensma**+. 2014. Exploring the distribution of bird damage in a blueberry field. Poster presentation, Washington Small Fruit Conference, Lynden, WA.
- 44. **Steensma, K**+, S Kerr. 2014. Survey of bird damage to dairies. Washington State Dairy Federation Meeting, Vancouver, WA.
- 45. Leigh, D\*+, J McLaughlin, and **KMM Steensma**. 2014. The effectiveness of American kestrels in deterring frugivorous birds in sweet cherry orchards. Limiting Bird Damage to Fruit Crops Meeting, Bellingham, WA.
- 46. Leigh, D\*+, **K Steensma**+ and C Burrows. 2014. Pacific Northwest field update. Limiting Bird Damage to Fruit Crops Meeting, Bellingham, WA.
- 47. Steensma, K+, J Steensma, J DeJong, and J VanderVeen. 2014. Limiting bird damage at the dairyberry interface. Limiting Bird Damage to Fruit Crops Meeting, Bellingham, WA.
- 48. Steensma, J, and **KMM Steensma**. 2014. Ecological agriculture on a conventional grazed dairy. Ecological Agriculture Course, AuSable Institute of Environmental Studies, field trip, Lynden, WA.
- 49. Lindell, CA+, S Shwiff, P Curtis, P Howard, **K Steensma**, G Linz, J Boulanger, N Rothwell, J Carroll, C Oh, C Burrows, M Longstroth, C Kaiser, D Lusch, S Wieferich, H Henrichs, D Leigh, M Shave, R Eaton, Z Herrnstadt, A Anderson. 2014. Bird management in fruit crops: economic, consumer, and biological perspectives. American Society for Horticultural Science Annual Meeting, Orlando, FL.
- 50. Lapsansky, T\* and **KMM Steensma**. 2014. Falcons and other natural predators: the importance of wildlife to healthy agriculture. Presentation to Barnyard Kids 4H group, Lynden, WA.

- 51. Steensma, J, **KMM Steensma**, and K Steensma. 2014. Whatcom County dairy farming: economics, ecology, and technology. Environmental Studies Agriculture Course, University of Washington, invited on-farm field trip, Lynden, WA.
- 52. **Steensma, KMM**. 2014. A case study in encouraging native raptors on an Abbotsford farm. Invited speaker, Integrated Pest Management Course, University of the Fraser Valley, Chilliwack, BC.
- 53. **Steensma, KMM**+, D Leigh\*, C Rossetti, and K Steensma. 2014. Preventing bird damage in vineyards: pros and cons of several techniques. Invited speaker, Blue Mountain Horticulture Society, Milton-Freewater, OR.
- 54. Burrows, CL+, **KM Steensma**+, D Leigh\*+, Katherine M Steensma, C Rossetti, CA Lindell. 2013. Bird management in fruit crops: the first two years of research. Poster presentation, Washington Small Fruit Conference, Lynden, WA.
- 55. Leigh, D\*+ and **KMM Steensma**. 2013. Deterring birds in blueberries: three potential techniques. Invited speaker, Washington Small Fruit Conference, Lynden, WA.
- 56. **Steensma, KMM+**, D Leigh\*, C Burrows, and C Kaiser. 2013. Bird damage to fruit crops: Pacific Northwest update 2013. Limiting Bird Damage to Fruit Crops Meeting, East Lansing, MI.
- 57. **Steensma KMM.** 2013. Limiting pest birds on dairies and fruit crops in the Pacific Northwest. Invited speaker, Integrated Pest Management Course, University of the Fraser Valley, Chilliwack, BC.
- 58. **Steensma KMM.** 2013. Co-existence of farmers, cows, salmon and wildlife: Possibilities for the Fraser Valley in the 21<sup>st</sup> century. Invited speaker, Fraser Valley Watersheds Coalition, Mission, BC.
- 59. Zwamborn, E\*+ and KMM Steensma. 2012. Investigation of the Viability of Falconry as an Alternative Bird Management Practice in Blueberry Crops. Poster presentation, Murdock Charitable Trust College Science Research Conference, Whitman College, Walla Walla, WA.
- 60. Zwamborn, E\* and **KMM Steensma**. 2012. Investigation of the Viability of Falconry as an Alternative Bird Management Practice in Blueberry Crops. Poster presentation, Washington Small Fruit Conference, Lynden, WA.
- 61. **Steensma, KMM**, D Leigh\*, C Rossetti. 2012. Preliminary quantification of bird damage to Northwest fruit crops. Invited speaker, Washington Small Fruit Conference, Lynden, WA.
- 62. **Steensma, KMM.** 2012. Pacific Northwest bird damage to fruit: challenges of the 2012 field season. Invited presentation, Specialty Crop Research Initiative/Bird Research Group, National Wildlife Research Center, Fort Collins, CO.
- 63. **Steensma, KMM.** 2011. Bird damage to fruit crops: a new collaborative approach across North America. Invited speaker, Washington Small Fruit Conference, Lynden and Prosser, WA.
- 64. **Steensma, KMM.** 2011. Managing habitat for the Oregon forest snail *Allogona townsendiana:* Species at Risk Stewardship Practices on the South Coast. Invited speaker, South Coast Conservation Program, Seabird Island First Nation, Agassiz, BC.
- 65. **Steensma, KMM.** 2011. Wild raptor enhancement: a potential low-cost pest control method for blueberries. Invited speaker, All Industry Washington Blueberry Meeting, Mt. Vernon, WA.
- 66. **Steensma, KMM.** 2010. Bird abatement in fruit crops: research directions in the Pacific Northwest and elsewhere. Invited speaker, Western Washington Small Fruit Conference, Lynden, WA.
- 67. Prasad, R, **KMM Steensma**, and T Stobbe. 2010. Community at risk? Agriculture and pesticides in the Chilliwack community. Invited speaker, Science World Café' Scientifique panel discussion, Chilliwack, BC.
- 68. **Steensma, KMM**+, PL Lilley, and HM Zandberg\*. 2010. Life history and habitat requirements for the Oregon forest snail *Allogona townsendiana:* implications for habitat protection and management. Invited speaker, Entomological Society of Canada, Vancouver, BC.
- 69. Heuring, K\*+, and **KMM Steensma**. 2010. Raptor enhancement in Pacific Northwest agriculture. Murdock Charitable Trust College Science Research Conference, Portland, OR.
- 70. DenHaan, M\*+, KMM Steensma, and D Venema. 2010. Primer identification and non-destructive DNA sampling for genetic diversity of the endangered Oregon forestsnail *Allogona townsendiana*. Murdock Charitable Trust College Science Research Conference, Portland, OR.
- 71. Steensma, KMM. 2010. The American kestrel (Falco sparverius) and other potential deterrents to

bird damage in fruit crops. Invited presenter, Bird Damage to Fruit Conference, Traverse City, MI

- 72. **Steensma, KMM.** 2010. Biological control of pest birds for southwest British Columbia and northwest Washington. Invited lecturer, University of the Fraser Valley, Chilliwack, BC.
- 73. **Steensma KMM.** 2009. Bird deterrent experiments: an update on artificial and biological techniques in the Pacific Northwest. Invited speaker, Western Washington Small Fruit Conference, Lynden, WA.
- 74. **Steensma, KMM**. 2009. Bird deterrent methods for agricultural areas of southwest British Columbia and northwest Washington. Invited speaker, Lower Mainland Horticultural Improvement Association Short Course, Abbotsford, BC.
- 75. **Steensma, KMM.** 2008. Advances in bird deterrent methods for agricultural areas of southwest British Columbia and northwest Washington. Invited speaker, Western Washington Small Fruit Conference, Lynden, WA.
- 76. Edworthy, A\*+ and **KMM Steensma**. 2008. Habitat and migration patterns of the Oregon forestsnail *Allogona townsendiana*. Murdock Trust College Science Research Conference, Tacoma, WA.
- 77. **Steensma, KMM** and K Hartline\*. 2008. Increasing nesting habitat for American kestrels. Invited speaker, Creative Scarecrows Alternative Bird Control Techniques Meeting, Lynden, WA.
- 78. **Steensma, KMM**+, B Dover and K Hartline\*. 2007. Use of kestrels for biological control of starlings on fruit and dairy farms. Invited speaker, Western Washington Small Fruit Conference, Lynden, WA.
- 79. Leigh, D\*+ and **KMM Steensma**. 2007. Determining mortality in an endangered land snail, *Allogona townsendiana*. Murdock Charitable Trust College Science Research Conference, Portland, OR.
- 80. **Steensma, KMM** and R Pelant. 2007. Global conservation as Christian mission. Seattle Pacific University, Seattle, WA.
- Koole, SR\* and KMM Steensma. 2007. Land use in the Canadian portions of two transboundary watersheds, Bertrand Creek and Fishtrap Creek. Georgia Basin Puget Sound Scientific Research Conference, Vancouver, BC.
- 82. Rekers, M\*+ and **KMM Steensma**. 2006. Determination of home range and seasonal habitat preference in *Allogona townsendiana* using harmonic range tracking. Murdock Charitable Trust College Science Research Conference, Portland, OR.
- 83. **Steensma, KMM** and DR Clements. 2006. A Tale of Oaks, Salmon and Snails: Land Stewardship at Trinity Western University. Invited speaker, American Scientific Affiliation Annual Meeting, Grand Rapids, MI.
- 84. **Steensma, KMM**, PL Lilley, and HM Zandberg\*. 2005. Preliminary assessment of critical nesting habitat for the Oregon forest snail *Allogona townsendiana*. Invited presenter, Invertebrate Species at Risk Symposium, Victoria, BC.
- 85. **Steensma, KMM.** 2004. Marine biology in the Pacific Northwest. Invited naturalist, American Scientific Affiliation Annual Meeting, Vancouver Harbour and Vancouver Aquarium, BC.
- 86. **Steensma, KMM.** 2002. The biology and history of Berthusen Park. Invited naturalist, Lynden City Park and Recreation Committee, Lynden, WA.
- 87. **Steensma, KMM**. 2002. Historic farmhouses of North Whatcom County. Invited speaker, Lynden Pioneer Museum, Lynden, WA.
- 88. **Steensma, KMM.** 2001, 2000. The history and biology of Bertrand Creek. Invited speaker, Whatcom Conservation District Educational Workshop, Lynden, WA.
- 89. **Steensma, KMM.** 2000. Are cows and salmon ecologically compatible? Keynote speaker, Washington State Dairy Federation 108th Annual Meeting, Blaine, WA.
- 90. **Steensma, KMM.** 2000. Is the farmer an endangered species? Compatibility of salmon and agriculture. Invited panelist, community agriculture forum, Lynden, WA.
- 91. Carlson, G and **KMM Steensma**. 2000. Crossing the 49<sup>th</sup> parallel: transboundary stream issues. Invited speaker, Inheriting the Earth Conference on Conflict, Faith, and the Environmental Professional, Langley, BC.
- 92. Clements, D, A Carlile\*, **KMM Steensma**, D Kehler\*, BG Wernick\*, H Schreier. 1997. Management of a healthy salmon stream (the Salmon River, Langley, B.C.) subject to increased urban and agricultural pressures. Soil and Water Conservation Society meeting, Toronto, OT.

- Steensma, KMM. 1994, 1990. Lifestyles of the soft and squishy: study of marine animals. Invited workshop leader, American Association of University Women Expanding Your Horizons Program, Bellingham, WA
- 94. **Steensma, KMM.** 1991. Marine ecology. Invited workshop leader, Society of Christian Schools of BC Conference on Christian stewardship of the environment, Langley, BC.
- 95. **Steensma, KMM.** 1990. Marine ecology and environmental pressures in the world's oceans. Invited speaker and panelist, Institute for Christian Studies family conference on Christians and the environment, Yarrow, BC.
- 96. **Steensma, KMM**, F Formway, and B Brenner. 1989. Effects of the Exxon Valdez oil spill on marine life. Invited panelist, episode of "Anchor" television series, KVOS TV, Bellingham, WA.
- 97. **Steensma, KMM.** 1988. Christian stewardship of the earth's resources. Invited speaker, Christian environmental stewardship forum sponsored by Concerned Christian Citizens, Lynden, WA
- 98. Steensma, KMM. 1985. Feeding ecology of the marine gastropod *Batillaria attramentaria*. Northwest Science Conference, graduate student colloquium, Bamfield Marine Sciences Centre, Bamfield, BC.

+denotes primary presenter, where not all authors were presenting \*denotes undergraduate or graduate student involvement

#### Graduate students supervised

- Lauren Katayama, M.S. in Natural Resources and Environmenal Management, University of Hawaii Impacts of invasive ungulates on Hawai'i ranchlands Expected to defend August 2024
- Laura Luther, M.S. in Natural Resources and Environmental Management, University of Hawaii at Manoa.

*Factors influencing the distribution of the Hawaiian short-eared owl (Pueo) on Maui, Hawai'i.* Successfully defended June 2020.

Tyler Caskins, M.S. in Animal Science, Washington State University. Bovine-avian interactions on dairies: Managing pest birds to improve cow well-being. Successfully defended April 2018.

Deanna Leigh, M.S. in Environmental Studies, Western Washington University. *The effect of American kestrels on deterrence of bird damage to Pacific Northwest sweet cherries*. Successfully defended December 2015.

#### Undergraduate thesis students supervised

Logan Yamamoto*	2023	Land use mapping of Mountain Slough watershed, British Columbia, Canada
Benett ImBeau	2023	Chiropteran species richness and seasonal variation in activity in Langley, British Columbia, Canada
Beth Reimer*	2021	Oregon forestsnail (Allogona townsendiana) habitat analysis
Natalie Bruner*	2021	GIS assessment of riparian reserve widths in critical habitat for the
		Salish sucker (Catostomus sp.) in British Columbia since the Species at
		Risk Act was enacted
Logan Betsworth*	2020	Analyzing nesting and fledging behaviors of Falco sparverius
		(American kestrels) at a nest box site in Chilliwack, British Columbia
Kathryn Dyck*	2020	Population assessment of the endangered Salish sucker ( <i>Catostomus catostomus</i> ) within the Upper Salmon River watershed, British Columbia
Jessica Brouwer*	2020	Old growth and second growth fungal diversity in Berthusen Park,
		Lynden, Washington
Aurora Sarchet*	2018	Seasonal fluctuations in pest bird numbers on Northwest Washington
		dairies
Kira Banner*	2017	Use of pellet analysis to determine the diet of the American

		Kestrel, Falco sparverius, in Pacific Northwest cherry orchards
Julie Merchel*	2017	The effects of vessel traffic on the behaviours of southern 'resident' killer whales, <i>Orcinus orca</i> , in the Salish Sea
Carolyn Bazin*	2015	An in-depth species count of various frugivorous birds present in both control and kestrel-occupied study plots within cherry orchards
Jason Koepke*	2014	Investigation of falconry as an alternative bird pest management practice in blueberry crops
Curtis Abney*	2014	Biological inventory of McLellan Forest – NWD Plan 1560 (Township of Langley): including vertebrates, vascular plants, select non-vascular plants and select invertebrates
Lara Loubser*	2014	Habitat characterization, restoration and GIS mapping of <i>Rana aurora</i> and <i>Monadenia fidelis</i> in Blaauw Ecoforest
Tyler Bode*	2013	Examining old growth and second growth forest structure and Biodiversity in Berthusen Park, Lynden, Washington
Elizabeth Zwamborn**	2013	Assessment of the damage caused by birds in Pacific Northwest blueberry crops
Jordan Thiessen*	2012	Population analysis of the Oregon forestsnail <i>Allogona townsendiana</i> , using mark and recapture techniques within a riparian remediation
Jacob Ott*	2012	project American kestrel ( <i>Falco sparverius</i> ) translocation to Whatcom County, WA: study of sexual dimorphism and size variation in onset of flight,
Marie DenHaan*	2010	hunting behavior and final dispersal Non-destructive DNA sampling and primer identification for genetic diversity of the endangered Oregon forestsnail <i>Allogona townsendiana</i>
Kim Heuring*	2010	Habitat enhancement for the American kestrel <i>Falco sparverius</i> in Pacific Northwest agriculture
David Wilson*	2010	<i>Falco sparverius</i> as a potential biological pest control of <i>Sturnus</i> <i>vulgaris</i> populations in the Fraser Valley of British Columbia, Canada
Katherine Steensma**	2010	Dispersal and behavioral patterns of orphaned American kestrel ( <i>Falco sparverius</i> ) fledglings released in an agricultural habitat (co-supervision with Dr. Eric Long, Seattle Pacific University)
Katherine Hartline	2009	American kestrel nest box study: Population dynamics of <i>Falco</i> sparverius in Lynden, Washington
Christine Bylenga***	2009	Interactions of a first-time mating pair of Andean condors
Amanda Edworthy***	2009	Long-term migration patterns of the Oregon Forestsnail, <i>Allogona</i> <i>townsendiana</i> , in a Langley British Columbia population
Deanna Leigh**	2007	A Forensic Survey to Determine the Causes of Mortality in an Endangered Land Snail, <i>Allogona townsendiana</i>
Joanna Appenheimer*	2006	A comparison study between Guy and Rardi Creeks using the CABIN Analysis Method, with an emphasis on benthic invertebrates as
Katie Mayes**	2005	Environmental indicators Comparison of Aquatic Invertebrate Sampling Methods Using Guy and Rardi Creeks
Martin Rekers*	2005	Determination of Home Range and Seasonal Habitat Preference in Allogona townsendiana using Harmonic Range Tracking
Martyna Kus*	2005	A Study of Reproductive strategies and development of a hermaphroditic terrestrial snail <i>Allogona townsendiana</i>
Jane Schipma*	2005	An intercultural comparison of marine debris from Belize and Canada
Jared Hoffer*	2005	A survey of amphibians and fish on the TWU 57 acre parcel
Sophia Hong*	2003	Coral Reef Diversity in North Borneo: A Fish Market Survey in Kudat
Stephanie Koole*	2005	Sabah An Analysis of the Land Use Patterns and the Overall Health of the Canadian Portion of the Bertrand and Fishtrap Creek Watersheds
Karen Weisner	2004	The effects of light on the growth of <i>Oncorhynchus tshawytscha</i> at the Tynehead Fish Hatchery.

Heather Silviera*	2004	A Population Inventory and Microhabitat Characterization of <i>Allogona</i> <i>townsendiana</i> at Trinity Western University
Julie Bartlett*	2004	Comparison of species diversity in old growth and second growth forest habitats of Berthusen Park, Washington
Candace Cole	2003	Viability for an educational garden enterprise at Trinity Western University
Mandy DeJong*	2003	Don't drink the water: a closer look at fecal contamination due to bird populations in Drayton Harbor, Washington
Sooze Waldock*	2001	Allogona townsendiana and its correlation with Urtica dioica
Matt Prebble*	2001	A study of <i>Quercus garryana</i> and associated organisms on Trinity
		Western University's Crow's Nest Property
Jennifer Dodd*	2001	Population estimates of the invasive clam Nuttallia obscurata in the
		British Columbia lower mainland
Jennifer Wright*	2000	A behavioral analysis of the caracal Felis caracal in captivity at
		Mountain View Farm
Stephen Ross	2000	Of algae and salmon: A comparative study of indicator diatoms in the
		TWU pond and the Salmon River
Marianne Huizing*	2000	Inventory of small terrestrial vertebrates at Blaney Bog
Darlene Kun*	1999	Bioinventory of the insects of the Trinity Western University
		Ecosystem Study Area
Jack Crompton	1999	Fish survey of the Trinity Western University Ecosystem Study Area
Amy Carlile***	1997	Relationship between freshwater nitrate levels, land use patterns and phytoplankton populations of the Salmon River
Laura Murphy*	1995	Painted turtle ecology in an Eastern Washington pond
Jay Reimer	1994	A survey of the Fishtrap Creek for bivalve populations
Barbara Wernick**	1990	A study of fecal coliforms in MacMillan Lake and the Salmon River
Durbara Werniek	1770	r study of food contonnis in tractorinan Dake and the Dannon River

\*Students who, to my knowledge, went on to careers related to biology, agriculture, or natural resources \*\*MS degree earned

\*\*\*PhD degree earned

# Laboratory manuals and field guides

- 1. Wernick, BG and KMM Steensma. 2023. The CRABBERS Guide: Ecology of Marine Life and Plants on Salt Spring Island, 10<sup>th</sup> ed. Langley, BC: Trinity Western University. 150 pp.
- 2. Wernick, BG and KMM Steensma. 2022. A Field Guide to Coral Reef Ecology in Hawai'i. Langley, BC: Trinity Western University. 58 pp.
- Steensma, KMM and BG Wernick. 2021. The CRABBERS Guide: Ecology of Marine Life and Plants on Salt Spring Island, 9<sup>th</sup> ed. Langley, BC: Trinity Western University. 144 pp.
- Steensma, KMM and C Bylenga. 2019. The CRABBERS Guide: Ecology of Marine Life and Plants on Salt Spring Island, 8<sup>th</sup> ed. Langley, BC: Trinity Western University. 220 pp.
- 5. Wernick, B, KMM Steensma, and C Pittman. 2018. The SHRIMPERS Guide to the Bioherm, 5<sup>th</sup> ed. Langley, BC: Trinity Western University
- 6. Steensma, KMM and C Bylenga. 2017. The CRABBERS Guide: Ecology of Marine Life and Plants on Salt Spring Island, 7<sup>th</sup> ed. Langley, BC: Trinity Western University. 210 pp.
- 7. Wernick, B, KMM Steensma, C Pittman, and CJ Flora. 2016. The SHRIMPERS Guide to the Bioherm, 4<sup>th</sup> ed. Langley, BC: Trinity Western University.
- 8. Steensma, KMM and C Bylenga. 2015. The CRABBERS Guide: Ecology of Marine Life and Plants on Salt Spring Island, 6<sup>th</sup> ed. Langley, BC: Trinity Western University. 210 pp.
- 9. Wernick, B, KMM Steensma, C Pittman, and CJ Flora. 2014. The SHRIMPERS Guide to the Bioherm, 3<sup>rd</sup> ed. Langley, BC: Trinity Western University. 197 pp.
- Fox, RS, D Kehler, and KMM Steensma. 2013. Invertebrate zoology laboratory manual. 4<sup>th</sup> ed. Langley, B.C.: Trinity Western University. 280 pp.
- 11. Steensma, KMM and C Bylenga. 2013. The CRABBERS Guide: Ecology of Marine Life and Plants on Salt Spring Island, 5<sup>th</sup> ed. Langley, BC: Trinity Western University. 206 pp.

- 12. Wernick, B, KMM Steensma, C Pittman, and CJ Flora. 2012. The SHRIMPERS Guide to the Bioherm, 2<sup>nd</sup> ed. Langley, BC: Trinity Western University. 208 pp.
- 13. Fox, RS, D Kehler, and KMM Steensma. 2011. Invertebrate zoology laboratory manual. 3<sup>rd</sup> ed. Langley, BC: Trinity Western University. 278 pp.
- 14. Steensma, KMM and C Bylenga. 2011. The CRABBERS Guide: Ecology of Marine Life and Plants on Salt Spring Island, 4<sup>th</sup> ed. Langley, BC: Trinity Western University. 213 pp.
- 15. Zandberg, H, B Dykstra, D Kehler, K Siemens, and KMM Steensma. 2011. Laboratory Guide to Developmental Biology. Langley, BC: Trinity Western University. 56 pp.
- 16. Flora, CJ, CC Pittman, BG Wernick and KMM Steensma. 2010. The SHRIMPERS Guide to the Bioherm. Langley, BC: Trinity Western University. 150 pp.
- 17. Bainard, JD, H Zandberg, DR Clements, D Kehler, and KMM Steensma. 2009. General Ecology Laboratory Manual. Langley, BC: Trinity Western University. 60 pp.
- 18. Fox, RS, D Kehler, and KMM Steensma. 2009. Invertebrate zoology laboratory manual. 2<sup>nd</sup> ed. Langley, BC: Trinity Western University. 299 pp.
- 19. Steensma, KMM and MW Rekers. 2009. The CRABBERS Guide: Ecology of Marine Life and Plants on Salt Spring Island, 3<sup>rd</sup> ed. Langley, BC: Trinity Western University. 241 pp.
- 20. Bainard, JD, H Zandberg, DR Clements, D Kehler, and KMM Steensma. 2007. General Ecology Laboratory Manual. Langley, BC: Trinity Western University. 47 pp.
- Steensma, KMM, ed. 2006. The CRABBERS Guide: Ecology of Marine Life and Plants on Salt Spring Island, 2<sup>nd</sup> ed. Langley, BC: Trinity Western University. 101 pp.
- 22. Fox, RS, D Kehler, and KMM Steensma. 2006. Invertebrate zoology laboratory manual. Langley, BC: Trinity Western University. 164 pp.
- 23. Steensma, KMM, ed. 2004. The CRABBERS Guide: Ecology of Marine Life and Plants on Salt Spring Island. Langley, BC: Trinity Western University. 47 pp.

## **Reviews conducted**

- 1. 2021. Conservation of the Oregon forestsnail through translocation and habitat enhancement efforts. Mitacs funding proposal.
- 2. 2021. Whatcom County Climate Action Plan: Agriculture, Fisheries, and Food Security. Report to the Whatcom County Council.
- 3. 2021. Book review: "Sugar Birds" by Cheryl Bostrom. She Writes Press. Solano, CA
- 4. 2021. Cooperative of University Dairy Students, annual operations review. Washington State University
- 5. 2020. Robotic Laser Scarecrows: A Tool for Controlling Bird Damage in Sweet Corn. Crop Protection.
- 6. 2020. Supporting Farmer Adoption of Sustainable Bird Management Strategies. Human-Wildlife Interactions.
- 7. 2020. Cooperative of University Dairy Students, annual operations review. Washington State University.
- 8. 2019. Using camera-trapping to estimate vertebrate damage in Azorean vineyards. Crop Protection.
- 9. 2019. Cooperative of University Dairy Students, annual operations review. Washington State University.
- 10. 2018. Ecology and the necessity of death. Canadian Scientific & Christian Affiliation.
- 11. 2009. Climate change and the impacts on farming of salmon in Chile and Norway a comparative analysis. Grant proposal submission from Bjerknes Centre for Climate Research, Bergen, Norway, to the Research Council of Norway.
- 12. 2008. Analysis of museum records highlights unprotected land snail diversity in Alabama. Article submitted by University of Louisiana at Monroe Department of Biology and University of Wisconsin at LaCrosse Department of Biology, respectively, to the *American Malacological Bulletin*.
- 13. 1992. Public Involvement in Education (PIE) Fund grant reviewer. Reviewed funding applications to the Puget Sound Water Quality Authority.
- 14. 1991. Public Involvement in Education (PIE) Fund grant reviewer. Reviewed funding applications to the Puget Sound Water Quality Authority.

#### Interviews and media coverage, 1985-present

Interviewed for numerous print and broadcast media articles on topics related to raptors in agriculture, farmland preservation, kestrel falcon projects, salmon habitat restoration, and other stewardship issues.

Resulting broadcasts and print articles included the Canadian Broadcasting Corporation, National Public Radio (US), USA Today, University Affairs, various agricultural journals, the Langley Times, the KGMI Farm Show, the Bellingham Herald, and the Lynden Tribune, among others. For example, see <a href="https://www.darigold.com/using-nature-to-humanely-manage-pest-birds-on-dairies/">https://www.darigold.com/using-nature-to-humanely-manage-pest-birds-on-dairies/</a>

## Other public service, 1985-present

Led numerous guided beach walks, farm talks, and naturalist presentations for various community groups, churches and schools, including Redeemer University College, Calvin College, Lynden Christian School, Lynden Public School, Alex Hope Elementary School, Ebenezer Christian School, A Rocha USA, A Rocha Canada, AuSable Institute of Environmental Studies, Washington State legislators, and many others. For example, see <a href="https://www.farmersforreal.org/news/archives/10-2018">https://www.farmersforreal.org/news/archives/10-2018</a>